

Claims

1. A polynucleotide selected from the group of:

(a) a polynucleotide comprising any of the nucleotide sequences of
5 SEQ ID NOS: 1, 3, 5, 7, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28,
30, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64,
66, 68, 70, 71, 73, 75, 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97,
99, 101, 103, 105, 107, 109, 111, 113, 115, 117, 119, 121, 123, 125,
127, 129, 130, 132, 134, 136, 138, 140, 142, 144, 146, and 148;

10 (b) a polynucleotide encoding a protein comprising any of the amino
acid sequences of SEQ ID NOS: 2, 4, 6, 9, 11, 13, 15, 17, 19, 21,
23, 25, 27, 29, 31, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57,
59, 61, 63, 65, 67, 69, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92,
94, 96, 98, 100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120,
15 122, 124, 126, 128, 131, 133, 135, 137, 139, 141, 143, 145, 147,
and 149;

(c) a polynucleotide encoding a protein comprising any of the amino
acid sequences of SEQ ID NOS: 2, 4, 6, 9, 11, 13, 15, 17, 19, 21,
23, 25, 27, 29, 31, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57,
20 59, 61, 63, 65, 67, 69, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92,
94, 96, 98, 100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120,
122, 124, 126, 128, 131, 133, 135, 137, 139, 141, 143, 145, 147,
and 149 in which one or more amino acid residues are substituted,
deleted, inserted and/or added, and which is functionally equivalent
25 to a protein consisting of said amino acid sequences;

(d) a polynucleotide hybridizing under a stringent condition to a
polynucleotide consisting of any of the nucleotide sequences of SEQ
ID NO: 1, 3, 5, 7, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30,
34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66,
30 68, 70, 71, 73, 75, 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97, 99,
101, 103, 105, 107, 109, 111, 113, 115, 117, 119, 121, 123, 125,
127, 129, 130, 132, 134, 136, 138, 140, 142, 144, 146, and 148, which
encodes a protein functionally equivalent to the protein consisting
of the amino acid sequences encoded by said nucleotide sequences.

35 2. A polynucleotide encoding a partial peptide of the protein encoded

by the polynucleotide of claim 1.

3. A protein or a partial peptide thereof, which is encoded by the polynucleotide of claim 1 or claim 2.

4. A vector containing the polynucleotide of claim 1 or claim 2.

5 5. A transformant harboring the polypeptide of claim 1 or claim 2, or the vector of claim 4.

6. A method for preparing the protein or partial peptide of claim 3, which comprises the steps of:

(a) culturing the transformant of claim 5;

10 (b) recovering the expressed product.

7. A polynucleotide having at least 15 nucleotides complementary to the polynucleotide of claim 1 or claim 2, or a complementary strand thereof.

8. An antibody against the protein or partial peptide of claim 3.

15 9. An immunological assay method comprising the step of observing an immunological reaction of the protein of claim 3 with the antibody of claim 8.

10. A method of screening for a compound that controls the expression of the polynucleotide of claim 1 comprising the steps of:

20 (a) contacting a candidate compound with stomach cancer cells;
(b) comparing the expression level of a gene, which comprises the nucleotide sequence according to a SEQ ID NO shown in Table 1 in stomach cancer cells with that in control cells;

(c) selecting the candidate compound which alters the expression
25 level of the gene.

11. A use of a compound for controlling carcinogenesis and metastasis of stomach cancer, wherein the compound can be obtained by the method of claim 10.

12. A method for detecting stomach cancer comprising the steps of:

30 (a) measuring the polynucleotide of claim 1 in specimens from living bodies;

(b) correlating the measured results of (a) with the presence of stomach cancer.

13. A method for detecting stomach cancer comprising the steps of:

35 (a) measuring proteins and/or partial polypeptides of claim 3 in specimens from living bodies;

(b) correlating the measured results of (a) with the presence of stomach cancer.